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Culture, Heritage
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The Pas Moraine and the Mossy Portages

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Introduction

The Pas Moraine is one of the most prominent natural features of the western Manitoba landscape. For thousands of years it served as a natural land bridge connecting the central interior of the province with the country to the west. In recent centuries, it was crossed by portages that linked fur trade water routes. Today, with a provincial highway running its full length, it continues to function as an access corridor across western Manitoba.

Origins of The Pas Moraine

During the last Ice Age, which began about 70,000 years ago, massive ice sheets alternately advanced and "retreated" over the surface of Manitoba. The most recent of these glaciations occurred between 23,000 and 8000 years ago. Around 18,000 years ago, when this glaciation was at its height, the entire province was covered with an ice sheet composed of 25 million cubic kilometres of ice which was in places as much as 4 kilometres thick.

We know more about this final glaciation, called the "Late Wisconsinan", than about any that came before it. From its centres around Hudson Bay, the ice margin was forced southward by the sheer weight of snow and ice accumulation. As it advanced, it carried stones, gravel and other debris, scouring the landscape it passed over and disrupting or burying most of the deposits laid down by earlier ice advances. Eventually, the glacier reached its limit of maximum advance and began to "retreat". This retreat of the ice was not, however, an actual movement backwards. Rather, as temperatures warmed, the glacier's southernmost edges began to melt at a rate faster than the sheet was moving forward. When a temporary balance was achieved between the rate of melting and the rate of forward advance of the ice, the front of the glacier remained stationary and debris was dumped along the edge to form a ridge, or "end moraine". In its wake, the retreating glacier left behind vast lakes formed from its meltwaters. The largest of these was Lake Agassiz, at one time the largest lake on the North American continent, covering over one-half million square kilometres. The lake's shape and level fluctuated many times because of glacial advances and retreats and with the opening and closing of various drainage channels. Its northern limit was marked by the cliff of ice that had formed the glacier's southern margin.

One of the features created by the glacier was an end moraine 300 kilometres long, 6 kilometres wide and up to 27 metres high. "The Pas Moraine", as it is called, extended from Long Point, the peninsula which juts into the west side of Lake Winnipeg, westward in an arc between Cedar Lake and Lake Winnipegosis and terminated to the west of Cormorant Lake. Lake Agassiz lay to the south while the moraine was being formed, but with the continuation of the warming trend that ended the Ice Age, the glacier retreated to the north and the lake drained into Hudson Bay. By 5700 BC, Lake Agassiz had disappeared. Lakes Winnipeg, Manitoba and Winnipegosis are the remnants of this once-vast inland sea.

The Pas Moraine was formed between 10,500 and 9000 BC.

Early Peoples and Their Environments

By the time that The Pas Moraine emerged from beneath glacial meltwater, bison-hunting peoples had adapted themselves to the extensive grasslands that covered much of southern Manitoba. The Pas Moraine, however, was now covered with spruce forests, and so neither the bison nor the people who preyed upon them travelled there. The continental warming trend continued, and by approximately 4600 BC the climate was warmer and drier than it is today. The spruce forests that earlier covered The Pas Moraine gave way to a more open environment of juniper, sagebrush, ragweed, grasses and herbs.

After 4000 BC, the moraine supported a mixed forest dominated by poplar. Spruce re-appeared along with pine, but both tended to be localized in occurrence. Herbs and some grasses persisted from earlier times, but these too were fewer in number. Birch, ash and elm grew in scattered locations. It was during this time and into the southern edge of this woodland environment that people first arrived at The Pas Moraine in pursuit of the wintering bison herds.

Although generally regarded as a grassland-adapted species, bison spent the winter months in more sheltered locations, such as major river valleys and the edges of forests. Historically, they are known to have formed large herds during this season. Between 3000 BC and the time of Christ, various cultural groups exploited the resources of The Pas Moraine, and all of them based their livelihood on bison-hunting. It seems

likely that many of the archaeological sites dating to this period that have been discovered on The Pas Moraine were the winter camps of the people who had travelled from the south in pursuit of the bison herds. Sooner or later, however, the general area came to be occupied year-round by people who did not see the need for a return to the grasslands and the bison herds. How might this change have come about in the area of The Pas Moraine?

Since the end of the last Ice Age, the grasslands and parklands of southern Manitoba and Saskatchewan have been struck by periodic drought. Along with drought came an increase in fires and locust infestations. As a consequence, the migratory patterns of large game animals may have been disrupted, causing serious difficulties for the hunters who depended upon them for food. Historically, such hunters appear to have arrived at the bison's usual wintering grounds in anticipation of the herds. If the herds failed to arrive, hardships were experienced. Faced with starvation, the people had little choice but to remain in the forest and hunt other kinds of large game. The drifting snow that made travel on the plains so difficult would have been much less of a problem in the forest. Shelter and firewood were readily available, and the increased cold and heightened snowfall of this time period may have even been beneficial for hunting moose and caribou. These animals move about more in colder weather, and with increased snowfalls, the hunters could follow their tracks more easily. With the arrival of spring, the fish began their spawning runs up the rivers that flowed into Lake Winnipeg. Grand Rapids, located at the mouth of the Saskatchewan River just north of The Pas Moraine, has long been known as an excellent fishing spot, and the earliest evidence for fishing, represented by bone harpoons, dates to between 3000 and 1000 BC in the Boreal Forest of Manitoba. Thus, there would have been no compelling need to go elsewhere in search of food. Also with spring came an abundance of waterfowl. It is not difficult to understand why the southern forest of Manitoba, with its rivers and lakes, provided an attractive alternative to the severe drought conditions that every so often descended upon the plains to the south and west. Over time, the people seem to have become better adapted to the forest environment and their camps were moved progressively farther north. Unfortunately, the eventual fate of these early cultural groups and the extent of their contributions to later developments in the area are, at present, unknown.

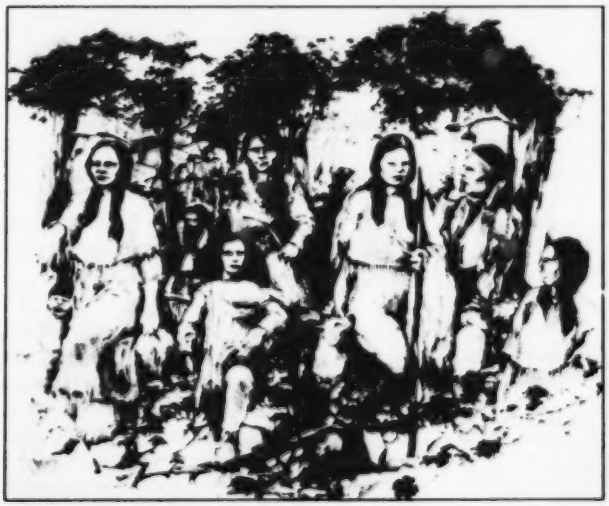
By the dawning of the Christian Era, the vegetation of The Pas Moraine consisted of a mixed coniferous forest similar to that which dominates the area today. Into this setting came groups of people whose homes had been the mixed forests situated to the south and east. Unlike their bison-hunting predecessors, however, these people had lived in the forests for thousands of years and had learned to use a wide range of plants and animals for food. They also brought with them a technology that enabled them to thrive here: the bow and arrow, pottery and the birchbark canoe.

The clustering of archaeological sites along rivers and on lake shores would seem to imply that these people exploited the lakes and rivers, and

that fish were an important food source. Although fishbones seldom survive long in the acidic soils of the coniferous forest, the recovery of bone harpoons certainly suggests the people speared fish. The presence of stone net-sinkers and net-impressions on their pots indicate that nets were also used to catch fish. In the appropriate seasons, moose, beaver, muskrat, otter, bear, rabbit, hare and ptarmigan were also hunted.

A variety of plants, such as the cattail, tule and lily were probably used to supplement their protein-rich diet with carbohydrates and starches. Parts of these and other plants are useful, too, for making thread, string and rope. In addition, the riverine setting gave these people easy access to transportation routes in the summer, and probably in the winter as well, since travel through the interior would have been difficult because of the dense tree cover and numerous swamps. It is clear that these people did, in fact, travel considerable distances over the course of the year and made extensive contacts with other groups. For example, the kinds of stone out of which they made their tools included Knife River Flint from North Dakota. Even though the ethnic identity of these people has not been positively determined, it is probable that they were in some way ancestral to the Cree Indians who were living in the area at the end of the seventeenth century.

Today, the area encompassing The Pas Moraine is low in elevation and frequently swampy, making travel on foot extremely difficult. The crest of the moraine itself is well drained, however, and during prehistoric times it may have been used as a "highway" between the interior Manitoba Lowlands and the Manitoba Escarpment to the west.



For many centuries, The Pas Moraine provided Native peoples with a major access corridor between the northern Interlake and the western side of the province.

The Fur Trade

The advent of the fur trade with Europeans modified Native use of The Pas Moraine. The establishment of the Hudson's Bay Company (HBC) on Hudson Bay attracted the Indians of the interior to the northerly posts. The Pas Moraine lay across a major north-south canoe route, connecting the plains and woodland people with the English traders. This route appears to have been overland from what is now Portage la Prairie to Lake Manitoba, through the narrows to Lake Winnipegosis, over The Pas Moraine to Cedar Lake, then on through several alternate river systems to Hudson Bay. The moraine crossings eventually became known as the East and West Mossy portages.

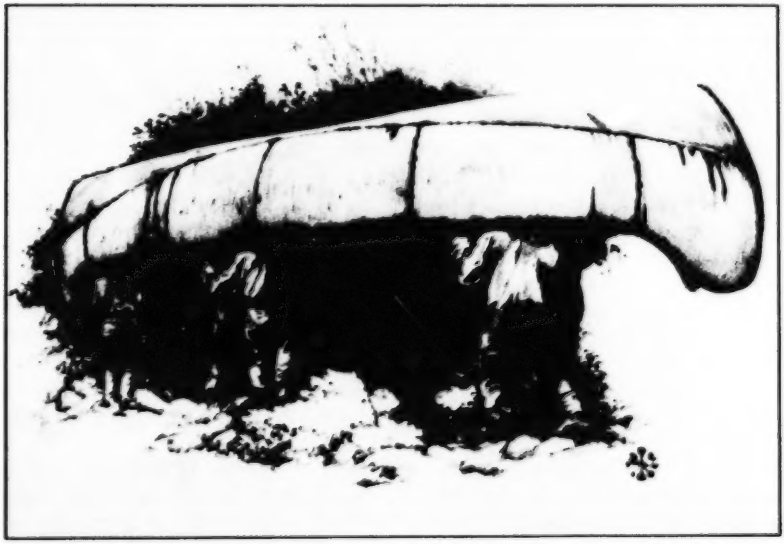
In 1738, La Vérendrye established Fort la Reine at what is now Portage la Prairie in order to intercept the trade of Indians passing along this route to the HBC posts. The following year, he commissioned his son, Louis Joseph ("Le Chevalier"), to explore the rivers flowing into Lake Winnipeg and to open a fur trade post on the Saskatchewan River to intercept trade from the west. In 1741, Le Chevalier established the first Fort Bourbon on Cedar Lake but it would seem that access to this post was by Lake Winnipeg and Grand Rapids (rather than Mossy Portage) because the route from Fort Dauphin on Lake Winnipegosis was "not good", according to early reports. By the 1750s, a number of traders from New France were actively at work in the Cedar Lake hinterland.

In response to these advances, the Hudson's Bay Company decided to send a number of its own men into the interior. The best known leader of one of these expeditions was Anthony Henday. Lesser known explorers included Joseph Smith, Joseph Waggoner and Cree chief Washiabitt, who were commissioned by Governor James Isham in 1756 to investigate conditions around the Manitoba lakes. They travelled to Lake Winnipeg via the Nelson River, portaged Grand Rapids to reach Cedar Lake, and wintered with a party of Indians in the Porcupine Hills to the southwest. The following spring they returned to York Fort across Mossy Portage to Cedar Lake and beyond, carrying information back to the bay on this new route, which was to become of vital importance to the English company.

In 1763, New France was ceded to Great Britain. Initially, the HBC was willing to abandon its inland activities, believing that it would no longer face competition there, but a powerful alliance of French Canadians and Scots entrepreneurs quickly initiated a new challenge. In the mid-1770s, there was a rush of Canadian traders to the northwestern interior, many of whom (including Peter Pond and Alexander Henry the Elder) appear to have chosen Mossy Portage as their route to the Saskatchewan River. One of them, Thomas Corry, re-established the Canadian trade post at Cedar Lake, and quickly began to intercept a sizeable portion of the furs intended for York Fort.

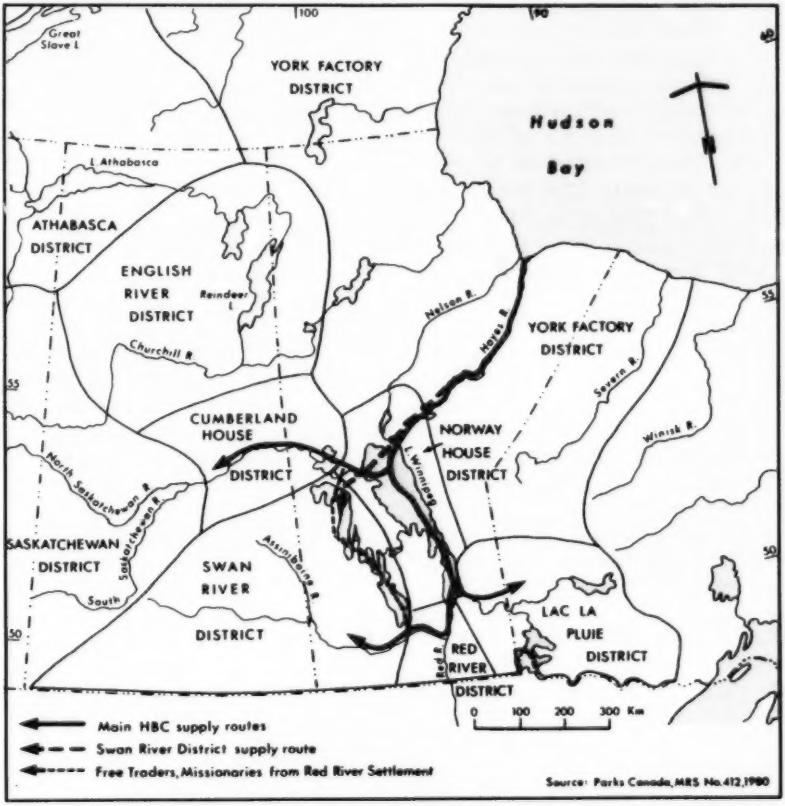
The HBC was once again forced to reconsider its policies, and a second move inland was initiated. The most important new post was established at Cumberland by Samuel Hearne in 1774, but a number of smaller posts were also established, including Swan River House which was founded in 1790. This new district was supplied from York Factory,

A camp scene on the portage.



Portaging a freighter canoe.

and Mossy Portage became an important link in the long transportation route involved. It was also used regularly by Ojibwa Indians, who summered on the shores of Cedar Lake and crossed the moraine on their return to winter camps in the vicinity of the Red Deer River. The importance of Mossy Portage was not diminished with the merger of the HBC and the North West Company in 1821.



Mossy Portage continued to serve Indians, company men and Roman Catholic and Anglican missionaries until increasing problems with supplies, employee shortages and work stoppages in the 1850s forced the HBC to reconsider its transportation system. The new railway systems in the United States prompted the company to experiment with shipping some trade goods from England via St. Paul in 1857. From there they were brought north to Fort Garry. In 1861, the Swan River outfit was first transported this way, instead of over Mossy Portage. Although the St. Paul route was temporarily closed in 1864-65 because of the Sioux uprising in Minnesota, the outfit of 1866 was once again shipped through the south. York Factory gradually declined in importance and, inevitably, Mossy

Portage began to be ignored as an official trade route. Several sources suggest that the HBC maintained a post or warehouse building on the shore of Lake Winnipegosis at the portage, but it was an insignificant establishment which apparently was not mentioned in any of the official records.

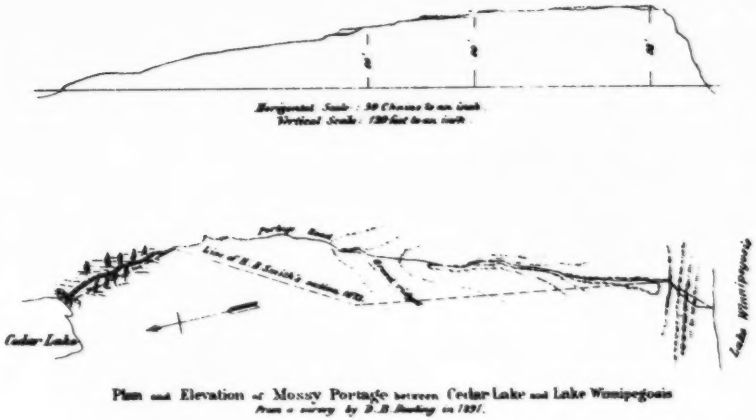
Potential Settlement Route

While the importance of Mossy Portage for the fur trade was declining, other developments were awakening interest in its potential. By the mid-nineteenth century, many Canadians had developed a preoccupation with western expansion, and all possible access routes to the agricultural lands of the interior were being investigated. In 1858, A.W. Wells, an assistant to geologist S.J. Dawson, completed the first official survey of East Mossy Portage.

When Donald A. Smith became Chief Commissioner of the HBC in 1870, he campaigned actively to promote new transportation developments in the Northwest, for the dual purposes of accessibility for fur trade posts to the north and land settlement schemes to the south. He anticipated regular steamboat connections so that it would be possible to travel from Winnipeg to Edmonton along the Lake Manitoba-Lake Winnipegosis route. His arguments to the HBC directors in London and to the House of Commons in Canada supported this route because boats could then avoid the storms on Lake Winnipeg which were so dangerous for watercraft with shallow drafts. Smith proposed that the route could be opened with a series of canals, although he recommended that a short railway be constructed over Mossy Portage because of seasonal fluctuations in water level. He commissioned the construction of a steamer for the HBC intended to run on Lake Manitoba to Mossy Portage, although the boat never saw service on that lake, having failed to reach it via Lake Winnipeg and the Dauphin River. By 1873, the HBC had also built a wagon road along the ridge at East Mossy Portage, and a corduroy road had been laid through the muskeg. Although the actual date of construction has not yet been determined, it seems likely that the roads were constructed as part of the commissioner's new plans for transportation development. Certainly, Donald Smith's enthusiasm for the route was shared by W.F. Butler, who crossed Mossy Portage in 1871 on his return from a fact-finding mission along the Saskatchewan. He confidently predicted that "Mossy Portage will one day or other form the easy line of communication between the waters of Red River and those of Saskatchewan."

When the first Canadian Pacific Railway company was formed in 1873, decisions were made about track location on the basis of land potential in the areas to which the new line would provide access. Among its preliminary surveys, the company commissioned one party to investigate Mossy Portage and the Lake Manitoba-Winnipegosis water route. Navigable waters in the vicinity of the railway would, it was hoped, facilitate the "settlement of the country" and thus "furnish valuable contributions to the traffic of the Line." The actual survey of Mossy Portage was completed by Henry B. Smith, although the official report was submitted

to Sandford Fleming by E.P. Bender who enthusiastically endorsed the idea of building a canal at Mossy Portage because he believed that the lands



Plan and Elevation of Mossy Portage between Cedar Lake and Lake Winnipegosis

From J.B. Tyrell, ***Report on North-Western Manitoba,*** *Ottawa, 1893.*

surrounding Lake Manitoba and Lake Winnipegosis were infinitely superior to those along the Lake Winnipeg route. He was "convinced that the sale of lands alone would exceed the cost of canal works." It was quite an optimistic suggestion, since the surveyors estimated that the cost of a canal at Mossy Portage would be in excess of eight million dollars! Only one of the surveyors disagreed with the idea, arguing that the water was too shallow and that the water levels fluctuated sufficiently to require an expensive lock.

Before any of these grandiose schemes would materialize, however, the "Pacific Scandal" put an end to the original CPR company and its plans. When the second company was organized, it decided to lay its tracks along a more southerly route. The idea of a northern waterways access was not completely abandoned, however, for some attention was devoted to the alternate Lake Winnipeg route. In 1875, the Canadian government issued a plan to develop a wharf and townsite at Grand Rapids and, in 1877, the HBC constructed a tramway there to bypass the rapids and facilitate the exchange of goods from lakeboat to riverboat. HBC Chief Commissioner James A. Grahame, who replaced Donald Smith in 1874, also appeared to favour the Grand Rapids route. Once again, the Winnipegosis-Cedar Lake route seemed to have become irrelevant.

Local Use

While the Canadian government and the HBC appeared to be losing interest in using Mossy Portage, private enterprise had not. Companies

like the Saskatchewan Transportation and Trading Company (1877) and the North West Navigations Company (1881) were formed with the intention of operating boats on Lake Winnipegosis and the Saskatchewan River, although neither ever operated as planned. More successful, however, was the firm of Shannon and Hartman of The Pas which, like previous independent traders in the 1860s and 1870s, was using Mossy Portage between 1883 and 1886 to freight in goods to trade in competition with the HBC in the area. This company established a loading point on the Lake Winnipegosis side of East Mossy Portage and hauled its trade goods over the portage with dogs. By 1886, however, it had decided that the Grand Rapids route would be cheaper, and built a new warehouse at that spot. In 1889, a Prince Albert entrepreneur established the Lake Manitoba Railway and Canal Company with an energetic plan for a northwest transportation network, which included a canal at Mossy Portage. Lack of financial backing prevented any construction and, in 1896, Donald Mann purchased the moribund company for its railway charter and land grant; he was not interested in the water navigation plans.

*The paddle steamer **North West**, constructed in 1881, was part of the Saskatchewan River fleet until 1896. Photo courtesy of Manitoba Archives.*

Nonetheless, the activities of railway promoters William Mackenzie and Donald Mann became important for Mossy Portage. By 1897, they had laid tracks as far as Sifton (north of Dauphin), with a branch line to Winnipegosis. Traders, settlers, and HBC personnel in the region of The Pas now found travel quick and convenient if they crossed Mossy Portage, travelled by steamer to Winnipegosis, and then took the new train to Winnipeg.

Easy accessibility also meant a sudden increase in the number of independent entrepreneurs at Cedar Lake and The Pas. Men like Louis Bacon and T.H.P. Lamb made use of the portage to import their trading

"outfits". Cedar Lake also developed a small but successful fishery. Now that fish could be exported quickly before they spoiled, many traders began to find this new activity lucrative. T.H.P. Lamb, for instance, operated a steam tug on Cedar Lake which made the rounds of Indian fishing camps, collecting sturgeon and caviar, then delivering the fish in ice to Mossy Portage whence it was hauled by horse teams to Lake Winnipegosis and then shipped off to the railway. Even the HBC entered into the fishery business for a time, in order to compete.

In 1906, the Canadian Northern Railway (as it was now called), began an extension of its track from the main line at Hudson Bay Junction, Saskatchewan, toward The Pas. The line was in operation by 1911, and essentially rendered the water routes obsolete. Nevertheless, Mossy Portage continued to be used by local people. Fishermen from Lake Winnipegosis crossed it to reach Grand Rapids, the HBC post at Cedar Lake, or The Pas. Perhaps the most unusual crossing of the portage was accomplished in 1933, when two Canadian government forestry officials arrived at East Mossy Portage by boat and walked across, while their equipment was flown to the other side by a government airplane!

In recent years, the construction of the Easterville provincial road continues to ensure that The Pas Moraine is used for its traditional purpose of transportation and communications. The construction of the dam at Grand Rapids in connection with the hydro development there has raised water levels in Cedar Lake, but has not interfered with access to the road or trails.

East and West Mossy Portages, then, played a role in the development of the western fur trade as a link in the transportation chain which connected the Assiniboine and Saskatchewan rivers, and as a connection between the fur hinterland of Lake Winnipegosis and its outlet at York Factory. The portages were promoted briefly in the 1870s as an alternative access route to the agricultural lands of the northwestern interior, and they formed part of the transportation routes used at the turn of the century to develop the fishery of the northern lakes. Once railway transportation was available to The Pas, and later to Hudson Bay itself, the route lost much of its importance, although it continues to be used as a local access point. A plaque at Oscar Point commemorates the contribution of the portages to Manitoba's development.

Suggestions for Further Reading

General works on the prehistory of The Pas Moraine region can be found in W.J. Mayer-Oakes, *Manitoba's First Settlers* (Manitoba Hydro Booklet, 1963); J. McPherson, "Inventory of Prehistoric Features: Prehistory of the Pilot Land Use Planning Area" *Pilot Land Use Planning Project* (Canada Land Inventory, Lands Directorate, Environment Canada, 1975); and *Through the Ages in the Swan River Valley* (Historic Resources Branch, 1984). The early fur trade in the region is discussed specifically in *The Fur Trade in the Swan River Region* (Historic Resources Branch, 1985). General surveys such as Harold A. Innis, *The Fur Trade in Canada, an Introduction to Canadian Economic History* (New Haven: Yale University Press, 1930); E.E. Rich, *The Fur Trade and the Northwest to 1857* (Toronto: McClelland and Stewart, 1967); and Arthur J. Ray, *Indians in the Fur Trade* (Toronto: University of Toronto Press, 1974) are also informative. Other sources which deal in part with Mossy Portage are L.J. Burpee, ed., *The Journals and Letters of Pierre Gaultier de la Varennes de la Vérendrye* (Champlain Society, 1927); A.S. Morton, *A History of the Canadian West to 1870-72,* second edition (Toronto: University of Toronto Press, 1973); and Bruce Peel, *Steamboats on the Saskatchewan* (Saskatoon: Prairie Books, 1972).

East and West Mossy Portages

This site is part of The Pas Moraine, a high, well-drained natural causeway that served Indians long before European contact as a major east-west travel route between the northern Interlake and Manitoba's western uplands. With the advent of watercraft several thousands years ago, narrow portions of the moraine became portages vital to north-south traffic between Cedar Lake and Lake Winnipegosis. This route was opened to white traders in 1750 when the sons of La Verendrye crossed Mossy Portage. Until the 1870s, the portages connected the main western route from Hudson Bay to the Swan River-Lake Dauphin fur areas. The crossings were important to the Hudson's Bay Company, the Nor-Westers, and independent traders. Use of the portages diminished after the introduction of steam transportation in the North-West.